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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,003	05/06/2004	Kari Laurila	460-009132-US (C01)	7659

2512 7590 05/25/2006

PERMAN & GREEN  
425 POST ROAD  
FAIRFIELD, CT 06824

EXAMINER
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STORM, DONALD L

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/840,003

Applicant(s)

LAURILA ET AL.

Examiner

Donald L. Storm

Art Unit

2626

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on October 11, 2005 through March 17, 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 14-19 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 20 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/482,277.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 12 and 14-19 are allowed. Claims 20-21 would be allowable over the prior art of record if rewritten to overcome any objections or rejections under 35 U.S.C. 112(2), especially as appearing in this Office action. Certain assumptions that make the limitations clear have been considered for the claims, as described next or elsewhere in this Office action.

2. The following is a statement of reasons for the indication of allowable subject matter:

a. With respect to rejection of claims 12, 20, and by dependency claim 21, under 35 USC § 103, citing Iso-Sipilä and Viikki in combination, the changes entered by amendment include determining an activity time limit and activity quantity and a pause detection decision that is made in calculation of the length of the pause in a sub-band if the quantity (counted number) of sub-band specific detections is greater than or equal to the activity quantity and the activity time limits has not been reached on other sub-bands. The references Iso-Sipilä and Viikki do not explicitly describe that limitation. The whole structure and interaction expressed by the combination of all limitations is not made obvious compared to the prior art of record for the whole invention of the claims, particularly with stored samples for producing a pause detecting result. Accordingly, the rejections are removed.

b. Regarding claim 14, the closest prior art that was found (Forse, Vähatälo) does not describe a difference between greatest power minimum and the smallest power maximum, when this claimed matter is considered as a whole with the other claim limitations, particularly the threshold calculation value using stored samples of sub-bands. Forse describes finding the maximum energy of speech and Vähatälo describes the difference between the maximum and minimum values of energy, but they do not provide evidence relevant to an objective teaching,

motivation, or suggestion to select and combine references holding the whole specific subject matter of these claims obvious to one of ordinary skill in the art of speech thresholding.

c. Regarding claim 16, and by dependency claim 17, the closest prior art that was found (Forse, Vähatälo) does not describe a modification of the greatest power minimum and the smallest power maximum, when this claimed matter is considered as a whole with the other claim limitations, particularly where the update coefficient value is determined using the greatest power level and the smallest power level of stored samples of sub-bands. Forse describes finding the maximum energy of speech and Vähatälo describes the difference between the maximum and minimum values of energy, but they do not provide evidence relevant to an objective teaching, motivation, or suggestion to select and combine references holding the whole specific subject matter of these claims obvious to one of ordinary skill in the art of speech thresholding.

d. Claim 18, and by dependency claim 19, at least set forth allowable material similar to claim 14.

### ***Priority***

3. The Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. It is noted that the PRELIMINARY AMENDMENT, filed May 6, 2004, causes this application to contain a specific reference to U.S. application 09/482,277 as the first sentence of the specification in order to rely on the filing date of the prior application under 35 U.S.C. 120. It is noted that the disclosure of the prior-filed application provides adequate support or enablement for one or more claims of this application. It is noted that copendency has been established by the decision ON PETITION, mailed May 17, 2006, reviving the parent application.

***Information Disclosure Statement***

4. A copy of the Finnish Office Action (filed November 10, 2005), its translation, and the copies of the documents are present in the application file, and they have been considered by the Examiner.

***Claim Informalities***

5. Claim 20, and by dependency claim 21, are objected to under 37 CFR 1.75(a) because the meaning of the phrase “said calculated energy level is” (line beginning *counting*) needs clarification. Because no one, particular calculated energy level was previously said, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phase as --said calculated energy levels are--.

6. Claim 20, and by dependency claim 21, are objected to under 37 CFR 1.75(a) because the meaning of the phrase “said energy level threshold value” (line beginning *energy*) needs clarification. Because no energy level threshold value was previously said, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phase to refer to --said power threshold value--.

7. Claim 20, and by dependency claim 21, are objected to under 37 CFR 1.75(a) because the meaning of the phrase “the quantity of sub-band specific detections” (line beginning *is made*) needs clarification. Because no quantity and no detections were previously recited, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phase as --said counted number--.

8. Claim 20, and by dependency claim 21, are objected to under 37 CFR 1.75(a) because the meaning of the phrase “the other sub-bands” (line beginning *the other*) needs clarification.

Because no other sub-bands were previously recited and no one, particular sub-band that would inherently define the other sub-bands was previously recited, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase as --a sub-band--.

9. Claim 20, and by dependency claim 21, are objected to under 37 CFR 1.75(a) because the meaning of the phrase “the calculation of the length of the pause in the sub-band” (next-to-last line and last line) needs clarification. Because no calculation was previously recited and no one, particular sub-band was previously recited, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase as --a calculation in a sub-band of a length of the pause--.

10. Claim 21 is objected to under 37 CFR 1.75(a) because the meaning of the phrase “said calculated energy level is” (line beginning *counting*) needs clarification. Because no one, particular calculated energy level was previously said, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase as --said calculated energy levels are--.

11. The Examiner notes, without objection, that the following phrases provide an inherent antecedent reference by their recitation in place: (claim 20) “the frequency”, “the signals”, “the energy levels”, “the number”, “the length”. The Applicant may wish to consider if the phrases clearly and without confusion recite the claimed subject matter that the Applicant wants.

***Response to Arguments***

12. The prior Office action, mailed September 16, 2005, denies the benefit claim under 35 USC 120, objects to the specification and claims, and rejects claims under 35 USC § 102 and § 103. The Applicant's arguments and changes in REQUEST FOR RECONSIDERATION, filed October 11, 2005, and in RESPONSE, filed March 17, 2006, have been fully considered with the following results.

13. With respect to the denial of benefit claim of Application Number 10/840,003 to the earlier filing date of Application Number 09/482,277, conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 have been complied with. Accordingly, the denial of benefit is removed. The Applicant's arguments and evidence with respect to the denial of benefit claim of Application Number 10/840,003 to the earlier filing date of Application Number 09/482,277 have been considered, but they are moot in view of continuity established by the decision ON PETITION, mailed May 17, 2006.

14. With respect to objection to the specification for improper reference to the prior application, compliance with conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 have made the reference proper. Accordingly, the objection is removed. The Applicant's arguments have been fully considered but they are moot in view of continuity established by the decision ON PETITION, mailed May 17, 2006.

15. With respect to objection to those claims needing clarification, the changes entered by amendment provide clear descriptions of some of the claimed subject matter. Those objections that remain are repeated elsewhere in this Office action. The objections of the previous Office action to claims other than those objected above are removed.

16. With respect to rejection of claims 12 and 14-21 under 35 USC § 102, citing Laurila alone and in combination, compliance with conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 is effective to remove Laurila as prior art. Accordingly, the rejections are removed. The Applicant's arguments have been fully considered but they are moot in view of continuity established by the decision ON PETITION, mailed May 17, 2006.

17. With respect to rejection of claim 13 under 35 USC § 102, citing Laurila, the rejection no longer apply because the claim has been canceled.

18. With respect to rejection of claims 12, 20, and by dependency claim 21, under 35 USC § 103, citing Iso-Sipilä and Viikki in combination, the changes entered by amendment include determining an activity time limit and activity quantity and a pause detection decision that is made in calculation of the length of the pause in a sub-band if the quantity (counted number) of sub-band specific detections is greater than or equal to the activity quantity and the activity time limits has not been reached on other sub-bands.

The references Iso-Sipilä and Viikki do not explicitly describe that limitation. Accordingly, the rejections are removed. The Applicant's assertions with respect to the references have been considered, but they are moot in view of the new claim element.

### ***Conclusion***

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO



MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any response to this action should be mailed to:

**Mail Stop AF**

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P.O. Box 1450  
Alexandria, VA 22313-1450

**or faxed to:**

(571) 273-8300, (please mark "EXPEDITED PROCEDURE"; for formal communications and for informal or draft communications, additionally marked "PROPOSED" or "DRAFT")

Patent Correspondence delivered by hand or delivery services, other than the USPS, should be addressed as follows and brought to U.S. Patent and Trademark Office, Customer Service Window, **Mail Stop AF**, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

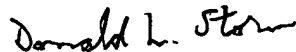
\*\*\*\*\* **IMPORTANT NOTICE** \*\*\*\*\*

The Examiner handling this application, who was assigned to Art Unit 2654, is assigned to **DIVISION 2626** as a result of consolidation in Technology Center 2600. Please include the new Division in the caption or heading of any communication. Your cooperation in this matter will assist in the timely processing of the submission and is appreciated by the Office.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Storm, of Division 2626, whose telephone number is (571) 272-7614. The examiner can normally be reached on weekdays between 7:00 AM and 3:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: [ebc@uspto.gov](mailto:ebc@uspto.gov). For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

May 23, 2006

  
Donald L. Storm  
Examiner, Division 2626